

In the Claims:

1. (Currently Amended) A system for compensating a power amplifier for variations due to temperature comprising:  
a power amplifier adapted to amplify an input signal based on a supply voltage, thereby producing an output signal; and  
a voltage generator adapted to generate a first voltage based on temperature such that the first voltage varies with temperature in such a manner as to offset variations in characteristics of the power amplifier due to variations in temperature;  
amplification circuitry adapted to amplify the first voltage to provide a reference voltage;  
and  
a voltage regulator adapted to provide the supply voltage based on the reference voltage and the control signal circuitry adapted to generate the supply voltage based on a control signal and temperature such that a change in temperature results in a change in the supply voltage, wherein the change in the supply voltage offsets variations in characteristics of the power amplifier due to variations in temperature.
2. (Original) The system of claim 1 wherein the output power of the power amplifier has essentially no variation due to temperature variation over a defined temperature range.
3. (Cancelled)
4. (Currently Amended) The system of claim 3 1 wherein the voltage generator is a bandgap voltage generator.
5. (Currently Amended) The system of claim 3 1 wherein the voltage generator comprises at least one resistor having a resistance value that determines an overall temperature coefficient of the voltage generator.
6. (Currently Amended) ~~The system of claim 1~~ A system for compensating a power amplifier for variations due to temperature comprising: